Holly Carr:

Hello, I'm Holly Carr with the U.S. Department of Energy. I'd like to welcome you to the April edition of the Better Buildings webinar series. In this series we profile the best practices of Better Buildings Challenge and Alliance partners and other organizations working to improve energy efficiency in buildings. Today we'll be looking at opportunities for energy efficiency in leased spaces. Leased spaces represent a significant opportunity for energy efficiency, both through energy-efficient fit-outs of tenant spaces as well as behavior change activities. Tenant spaces also have their own set of market challenges and best practices which our panelists will be sharing with you today.

So let's move to the next slide, please. I want to give you a little more detail about our presenters; U.S. Department of Energy, Cushman and Wakefield and Sprint. So let's move to the next slide and you can see some faces. So we'll start off today hearing from Cody Taylor, our very own Cody Taylor here in the Building Technologies Office at DOE. Cody is a team lead in the commercial building integration group in DOE's Building Technologies Office.

He leads the team's market transformation portfolio, helping markets to more effectively deliver energy efficiency. This includes initiatives to accelerate the market for zero energy buildings, improve data interoperability in the building sector, prepare the American workforce to deliver efficient buildings and more readily incorporate energy efficiency information into real estate finance investment construction and leasing decisions. So not a whole lot going on for Cody. [Laughs] Cody will start us off with a little bit of context for our conversation today and also tell you about DOE's work in the tenant energy efficiency over the past year where this has really revved up a little bit. Next we'll hear from Eric Duchon at Better Buildings Alliance partner Cushman and Wakefield.

Eric Duchon serves as the Director of Sustainability Strategies at Cushman and Wakefield, Inc. Eric is currently responsible for managing the environmental initiatives globally, including both client-facing services and internal corporate programs. He supports C&W's clients with their environment efficiency – excuse me – their environment efficiency and corporate responsibility initiatives and goals. Eric develops innovative programs such as the Utility Connect Program in Northern California whereby PG&E directs funds for energy efficiency analytics and utility-incentive concierge services for C&W's managed properties. Nationally, Eric is responsible for the managed properties compliance with the

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every growing benchmarking disclosure regulations. Eric also serves as co-chair of the Department of Energy's Better Buildings Alliance Commercial Real Estate Sector Steering Committee – thank you for that – and is vice chair of the BOMA/NY Energy and Sustainability Committee.

So Eric will be speaking from the lessors perspective about Cushman's best practices for weaving energy efficiency into their work with prospective tenants. He'll share a case study of an energy efficient build-out for a tenant and describe several other activities that have been underway at C&W to encourage tenants to reduce energy use in their spaces. And finally, we'll hear from Darrel Carter from Better Buildings Challenge Partner Sprint about their work to reduce energy use in their leased retail spaces. Darrel is a real estate manager responsible for energy and sustainability at Sprint, and during his time as real estate manager his department has received multiple recognitions and been instrumental in Sprint receiving several awards, including the EPA WasteWise Partner of the Year in 2014, DOE Better Buildings Challenge 2013, Electric Vehicle Challenge in 2014 and Newsweek's Third Greenest Company in 2012.

And I just want to thank all of our panelists today for taking time to be with us. Go to the next slide, please. So before we get started with our first presentation from Cody, I just want to remind our audience that we will hold all of our questions until near the end of the hour. Please send in your questions through the chat box on your webinar screen, and throughout the session today we'll try to get as many of those questions as we can into the queue and over to our panelists at the end of the session. This session will be archived and posted to the web for your reference later on.

You'll receive an email when that archive is available. So let's go ahead and start off with Cody. What is this legislation known as Tenant Star and how is DOE involved? What does it mean for tenants and landlords in the years to come?

Cody Taylor:

Great. Thank you, Holly. Good afternoon, everybody. I'm pleased to be here with you today. So I'm gonna talk a little bit about increasing energy efficiency in tenant spaces. There was some legislation in 2015 that opened the door for DOE to do a little more in this area. I'm gonna talk about some trends we're seeing and a lot of this is coming out of some feasibility study work that we've recently done.

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Finally, I will also mention sort of the longer term trajectory of activity catalyzed by that legislation and there's something that has been colloquially known at Tenant Star, the idea of a rating in tenant spaces. So next slide, please. So to start off, because we're the Federal Government, we'll start off with an easy and straightforward question, which is, is it feasible to make tenant spaces more energy efficient? And the answer that we're seeing is, yes, there are spaces out there. You're gonna hear about some folks later in the hour who have great high-efficiency spaces. However, not everybody's doing it.

Familiar story, because there are plenty of reasons in the commercial real estate market that it can be difficult, both for tenants and for building owners to make this happen. Those include things like the timing of upgrading spaces, the demographics of tenants in the market and other reasons. Next slide, please. So we have a report coming out about some of the challenges to energy efficiency in tenant spaces and some of the key opportunities there and some of the real solutions that seem to be working for folks. That is gonna be out by the end of this month, the end of April, so you're getting a sneak preview of that today for a couple minutes.

You can see some of the key takeaways on this page and I'm gonna talk through them a little bit in the next few slides. So next slide, please. I'll start with mentioning submetering. So the – one of the key things we saw was how submetering was really foundational as a way to understand the energy usage by different tenants in a multi tenant space, and what this did for landlords and tenants both in terms of helping to align energy usage with energy cost helps ensure that tenants are paying for their own consumption and not for the energy usage of others and that they can actually recognize the full benefits when they save energy.

Next slide. We also heard a lot from folks about the need for tools and resources to compare packages of efficiency technology. So when spaces are being fit out at the time, a new tenant is moving in, design teams for tenant spaces don't really have all of the tools they need that are streamlined enough for them to apply regularly, especially in smaller tenant spaces to select the right set of things for that space to make it efficient. So there was a clear need for continued improvement in that area.

Next slide, please. We also can see pretty clearly the need to expand the business case for energy efficiency. So what I mean by that is even where there are split incentives around both building

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owners and tenants can clearly benefit from increased energy efficiency, but not all businesses are set up to recognize that today and not all of them understand some of the emerging trends and research out there. So you can see some of the examples here of what the numbers and data have shown about advantages to owners of having more efficient spaces for lease. And also, building owners, in order to take advantage of that need to be able to understand and market some of those non energy benefits and how more efficient building can be more attractive to tenants on a number of other different axes.

So some owners are really good at doing that and making that value clear to potential tenants and others have not figured out how to do that quite as well yet. Next slide, please. Another thing we saw was really the need for energy modeling tools to be accessible for these small tenant space projects. Typically, design teams will use energy modeling more when they're designing a whole new building from scratch and there's a much larger budget to use to do clear analysis up front to figure out the best, most cost effective package of efficiency measures. It's harder for teams to justify doing that when a space is small, and so there's a clear need to ensure that those tools can reach that market.

Next slide, please. We also heard a lot of about leasing language and see some opportunities there. Again, there are great examples here of companies that have used lease language that aligns incentives around energy efficiency for both the owner and the tenant, things like ensuring that tenants can share their energy usage data with owners so the owner can have a clear picture of whole building energy usage for management purposes and things like ensuring that owners can make investments in energy efficiency improvements in the buildings and the tenant and the owner can both realize those financial benefits based on the leasing agreement. So the examples are out there and the use of these approaches is growing, but there is a lot more room for growth there. So this is another big opportunity.

Next slide, please. And finally, we're coming to the last area that I'm gonna talk about which is Federal recognition of high performance tenant spaces. So this is something that we saw also and began to hear from people, the value here of really following the examples of other Federal programs that recognize improved efficiency and allow owners in the market to differentiate themselves where spaces are more efficient. That's been effective in the past at the whole building level. Obviously, there's a lot of familiarity out there with Energy Star and the Better Buildings

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program, so there does appear to be a clear value to Federal recognition around efficient tenants spaces themselves.

Next slide, please. I'll talk a little bit more about where this is likely to go. So I mentioned the legislation passed last spring which really directs several Federal agencies to work together to develop a recognition program for efficient tenant spaces. I've laid out a rough timeline here. I want to emphasize that these are possible dates, and I'll talk about why this is sort of the optimistic case for how such a recognition program might unroll. Starting at the top there, EPA may develop a voluntary program recognizing efficient design and construction, so that's the physical construction of spaces based on the report that DOE's going to be issuing this month, and so DOE and EPA are going to be collaborating to discuss whether that's an effective possibility and how best to design such a system, if it makes sense.

Then the Energy Information Administration which conducts CBECs, our sort of census of commercial building energy use, was directed in the legislation to start figuring out how to collect data on tenant spaces. So individual spaces have not been a focus of CBECs in the past and that essentially directs the agency to explore how data can be collected on those tenant spaces. Then further down, once that data has been collected by EIA, EPA is directed to begin developing an occupancy-based recognition for tenants. So think about this as somewhat parallel to the Energy Star label for buildings today, also based on the CBECs data.

So the earliest that that's likely to be possible is in the 2021/2022 timeframe when some of that national data on tenant spaces may have been collected. There are a lot of unknowns still and challenges about - for example, the paucity of submetering out there across tenant spaces nationally today and the homogeneity of tenant spaces. I mean there are definitely some problems to be solved about how that data's collected and how a rating system would be designed, but this is kind of roughly how you might picture something like that unfolding. So we have a lot of interest in this.

We are grateful for the chance to work on it and we hope to work with many of you who I think are on the line today as we figure out how to make this possible over the coming years. So with that, I will close out and hand over to the next presenter. Thank you.

Holly Carr:

Thanks, Cody. I'll just jump in real quick. We'll be moving next over to Eric Duchon. There's a lot going on as you can tell as DOE

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right now in the tenant space. We're just getting started and looking forward to working with both other agencies and with the public to take the next steps. We have the good fortune of hearing from both the lessor side, the landlord side, as well as sort of the tenant side. So we'll start off with Eric at Cushman & Wakefield on the landlord side, talking about Cushman & Wakefield is doing both internally and to help their tenants progress with energy efficiency. Eric, take it away.

Eric Duchon:

Sure. Thank you, Holly. I'm very pleased to be here today speaking about Cushman and Wakefield's efforts in terms of tenant energy and water efficiency. If you can go to my first slide, I'm actually going to start with how we're working with our large multinational corporate clients on — within our transaction management process. Following this I'll talk about what we did internally with Cushman and Wakefield's buildout at 1 World Trade, how we leveraged our experience there as a property manager in our portfolio and then how we reach out to some of our tenants just through our Powerful Ideas Campaign.

So as you see on the screen here, years ago we developed a sustainable site selection process. When we started this process it was actually based on – very fully on the LEED for existing building rating system and we took almost every category and asked them question on it. We found that that was really not a great way to go and being realistic about getting responses from our landlords. So we've since over – probably about a year ago – condensed that long questionnaire and checklist down to eight questions in the sustainable building questionnaire that you see on the screen here. What we do is work with our clients' transaction management teams to customize this questionnaire to our clients' sustainability goals.

So you're seeing the one from one of our clients here, and we ask questions such as is the building or will it be Energy Star certified with a score higher than 75? What is the score? Is there an active waste reduction policy and program going on? Is electricity currently submetered by tenant, as Cody was just talking about, is a major topic for a lot of our corporate occupiers as they move into new space. Reporting like CDP is driving the decision to have actual submetered space, so we understand what tenants are actually using beyond just the energy efficiency piece of it. You don't want to be paying for what other tenants in the building are doing, but how do I maintain my information for myself and have a good understanding of it?

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So we send that questionnaire out to the landlords for prospective sites that these occupiers are looking to move in to, and then we receive the information back and score it using the scorecard. We actually weight each of the questions. As you see on this particular scorecard here, this client has decided that some of the question - some of the pieces will be a requirement to move in to them. That doesn't always come true when looking at actually selecting the space, but it is good to know if something that you want to include, perhaps in green lease language or as a future point of operation in the office space, isn't happening so you can plan for that very up front.

This questionnaire in its most basic form is included in every RFP that our transaction management teams send out and then the clients that we've worked on, which is a handful at this point on the scorecard side, actually collect and analyze the information that comes in and do use it as a part of their site selection process. Next slide, please. Down at 1 World Trade Center here in New York City we had a great opportunity to work with the NRDC High Performance Tenant Demonstration Project. Now that project is a little bit on hold in figuring out how they and us, the ULI, are going to leverage the great resources that were developed, but we have a lot of success with it.

So just a little bit less than a year ago we opened our doors at 1 World Trade. We actually didn't use that site selection process that I'd mentioned because we already knew we were going in there. The picture that you see with the three folks – Tara Stacom is a leasing agent of the building and we took a portion of space for our downtown office. Using the NRDC process we estimated that what will reduce our energy costs by \$16.13 per square feet over the 10-year term of our lease, and I'll go into a little bit more about how we're going to do that on the next slide. All we needed to do for that was a very incremental investment of \$14,000, and that's going - that actually is achieving a 1.6 year payback.

We did a little bit of M&V following the opening of the office, that I should've included in these slides, but everything looks like it's on track to achieve about a 1.8 year payback rather than 1.6 years. So next year at this time I'll actually be able to say that that investment of \$14,000 was already paid back. Next slide, please. So how did we get to this analysis? We did an energy model on our space and took a look at bunch of energy performance measures that we could implement. When we started the project we had a portion of the space being lighted by LEDs and we actually decided to go with 100 percent LEDs.

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It was a pretty easy decision once we figured out how much incrementally it would cost – obviously not much – and how much it would save us. We looked into daylight harvesting. When you walk into that office it is an open floor plan space and there are some interior offices, and every day – I think – I don't think I've ever walked into there where the lights on the exterior towards the windows weren't halfway off and if not fully off. So it's pretty cool to walk in and see these – what are LED strips going out be half lit up as they go towards the windows. We decided on Energy Star equipment which was a natural decision for us already given that our policy internally with all of our computers and laptops is already Energy Star, but we weren't planning on doing it for our kitchen.

So we took a look and now have an Energy Star fridge and actually an icemaker that meets the requirements. We also have a small server room in there. It's not a datacenter but just more of a closet, and we made some decisions for that room that saved us a significant amount of energy. So with all that we took a look at the energy model and developed a good, a better and a best package. We ended up going with the better package, which as I mentioned before was that total of \$16. 13 per square foot over the 10-year term.

The best package was just a little bit too much money. It was going to take us from that incremental investment of \$14,000 to somewhere like \$60,000 because the lighting control system that you see there was actually a more advanced one and the Cisco power management was going to be an afterthought, so we didn't think that those would be worthwhile investments for us just to get to the \$18.08 versus the \$16.13. So we went with that better package and are really happy with the way that our office turned out and the way that it is increasing our energy efficiency by design and to date. So next slide, please. How do we take our experiences with our World Trade Center office and leverage them into our managed portfolio where we act as property manager and landlord?

We have a building – a great portfolio out in Northern California that I'm very engaged in, and our managed property at 345 California was already a pretty high performing property there and they engaged us – rather than looking at retrofits with them they actually engaged us on how do we help the tenants that are moving in build to the standards that we as a property manager and our client as a landlord run the building? So we developed a one-pager

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that is now given out to all new tenants coming in. It takes a look at lighting, plug loads, HVAC, as you can see on the left, and also aligns our recommendations to the available incentives that PG&E provides through their Savings by Design Program. With this one-pager we've had a number of tenants reach out to us for additional assistance on going for those incentives, so that we know that they're really implementing these energy efficiency best practices.

Next slide, please. And then in general, outside of buildings that are really looking to have a tenant design package and handout, we – years ago, my colleagues Katie, Mike and Allison developed our Powerful Ideas Campaign, and it's a really snazzy campaign. We have 10 different posters – you see three of them here – that we encourage our property management teams all over the country to utilize in their tenant correspondence. So each one of them has just a little tagline, so just hang out at the water cooler, avoid too many ups and downs, and goes into a little bit of detail on why they should do that. So, you know, throwing away 38 billion plastic water bottles, that's \$1 billion worth of plastic.

Have a water cooler in your office and don't have that waste. Set your thermostat properly and conserve energy. You snooze, you lose; that's actually one of my favorites because it's something that we're also doing internally at Cushman & Wakefield. Turn your computer off versus snooze mode can save 64 kilowatts per year. That's a lot of energy considering how many people probably leave their computer on at night. As I mentioned, we're looking to change our power settings internally with our global technology group within Cushman & Wakefield, going from a screensaver mode to a snooze mode while you're in the office and then a policy that everyone should take their laptops home with them at night so the connected load isn't in our offices.

We're hoping to save a bunch of energy and leverage that and actually enhance this you snooze, you lose poster to talk about what we did so we can hopefully influence the tenants in our managed properties. So I hope everyone enjoyed - that's a little snapshot of what we internally at Cushman & Wakefield are doing both for ourselves as a tenant, on behalf of our tenants that we managed our transaction management process and as a property manager and landlord on behalf of our clients. Thank you.

Holly Carr:

Thanks so much, Eric. It's great to see what landlords can do and how proactive landlords can be with tenants and potential tenants. So thanks very much for those examples. A quick reminder to our audience to send in any questions that you might have through that

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chat window on the webinar box. We're collecting those for our Q&A period at the end after all three presenters have spoken.

And finally, let's go ahead to Kansas City with Darrel Carter at Sprint. As we mentioned, Sprint is a Better Buildings Challenge partner and they actually have achieved their challenge goal of 20 percent reduction. So Sprint has a really interesting portfolio because they have such a broad spectrum of energy use, from commercial office space to their retail stores, which are typically leased, and then Sprint also chose to address its network energy use as well through the challenge. So, Darrel, can you tell us more about your strategy for reaching 20 percent energy use reduction in the retail stores specifically?

Darrel Carter:

Thank you, Holly. I'm glad to be here today and share some of that information with you. We can go to the next slide. One more slide. There we go. So just a big about Sprint. We've been working on energy and sustainability for some time. It's been a very serious endeavor for us and we got a little bit of recognition along the way. Let's go to the next slide. The DOE Better Building Challenge, which we were a member of and what Holly's talking about at 20 percent, we actually received a 37 percent reduction from a 2007 base year. And as you can see here, that - for Sprint that meant \$168 million accumulated over that period of time.

So this is not only good for the environment, good for the people, but good for the pocketbook. So that's a triple win to me. Let's go to the next slide. Today we want to talk about our retail portfolio which is entirely leased and it's entirely small box retail based on short-term leases, three to five-year leases. And this is the hardest of all the retail or all the lease space to work in because your dollars have to be just razor thin.

You're dealing with a rather large number portfolio, very small square footage. We're talking here under 3,000 square foot per store. Now our portfolio's broken into two major pieces, and I'll tell you a little bit why that's important to us. Now the first subcategory there, the corporate stores, these are stores that we've had for some period of time and that's as opposed to franchise stores which I don't manage any at all, but these are hold by corporation.

Last year, Sprint wanted to increase, in fact double, the retail outlets in a short period of time so we made a deal with Radio Shack and brought 1,400 stores on in a single year. So this was a Radio Shack portfolio. Let's say it's kind of average as far as what

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energy usage would be. If you look at the average cost per square foot, you see the classic retail portfolio that we've been working on at \$2.59 per square foot as opposed to \$3.12. So what that tells me quickly is there's 53 cents per year per square foot on energy cost that if we integrate this new portfolio and treat it the way we've treated our existing portfolio, that amounts to \$1.8 million that we'll save by implementing what we've already done in our existing portfolio.

And to tell you a little bit what we've done, there's basically three approaches or three tactics that we've implemented in these retail portfolio. If we can go to the next slide. The first one is EMS or you may call it a building automation system. Most small box retail just have a simple analog thermostat. Now these are smart stats that have some alarm points and they remote into a central location. This allows us to put setbacks; in other words, set the temperature back at night when the store is not occupied. It allows us to see some alarms, avoid some truck rolls and solve some problems remotely, so this has been a good initiative for us.

Next slide, please. Second tactic we use is proactively replacing rooftop units at end of life and assuring that they were energy efficient. So we paid attention to the spec and paid a small incremental cost to get high energy efficiency. Whether or not you proactively replace your rooftop units, you certainly need to get a spec built that's high efficiency. So if you replace a number of your rooftop units just as course of business and you'll have a good gain on energy reduction if you build a good spec and control that replacement. Those things typically, if you're not proactively replacing them, they have an emergency situation and a lot of times there's not a lot of attention paid to how do we get this back on line just as quickly as possible.

Next slide. Our third tactic was to go to LED lighting. Most retail stores have a lot of lighting for display purposes, and we took an initiative to go through and upgrade to LED, and this was another good initiative for us that paid dividends. The next slide is our step into the future. What are we doing now, what are we doing looking forward. We call our program SEBA, Sprint's Energy and Building Analytics. You may know it as a Smart Building Program, but this is where you analyze data from your building automation system and you're optimizing the building automation and the HVAC all the time. So this is a new program that we're trying to the retail stores.

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The major challenge here again is small stores, small amount of energy. You have to get your costs down very, very well in order to make this viable. So that's what's on the horizon for us and I hope this is beneficial to you and I guess, Holly, I'll turn it back to you. Thank you.

Holly Carr:

Thank you. Thanks very much, Darrel. Really great to see all the things that Sprint has tackled in the retail space in just your stores alone. So we're really excited to see particularly how this SEBA program works out for you over time. We'll be watching that closely with you. We have a few additional resources that we wanted to make you aware of, so I think, Kendall, if we can move to the next slide, please, I'll cover a couple of those.

So you heard me mention that Sprint is a Better Buildings Challenge partner and they've already hit their goal and, you know, not only are they providing information about some of their best practices today on our webinar but they've also developed a couple of different case studies. One's very relevant to our conversation today. It's their implementation model. So you see a hyperlink there to a case study that describes more broadly how they address each of those different types of buildings and energy uses across their portfolio, so what they did specifically with commercial office buildings, what they did with retail, what they did with their network and so forth and how setting those goals for specific buildings and energy use types is really helpful to them as an organization.

So you can check out that hyperlink for more detail on what they did across the portfolio. I also wanted to mention the Green Lease Leaders program which is now housed – has been a partnership with – between DOE and Institute for Market Transformation. The Green Lease Leaders website is housed with IMT and has just boatloads of resources if you're looking to optimize your leases so that both the lessor and the lessee can benefit from energy efficiency upgrades in tenant spaces. I'll also give you a heads up that we are developing a resource that is in conjunction with the Green Lease resources that will be specific lease clauses focused on RTUs.

So, you know, what might you want to put into your lease as a tenant or as a landlord to help make sure that your rooftop units are running as efficiently as possible if they're existing units or that the highest efficiency that, you know, makes financial sense is installed if you need to replace those units as a tenant. I also want to mention a case study 1749 – oh, sorry, 749 University Row.

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This is a case study from a Better Buildings affiliate partner Seventhwave that they've developed. It's multi tenant space. They are actually tenants [laughs] in the space but along with many other tenants, and it's just a wonderful example of how – you know, if you're paying close attention you can be developing a very high efficiency multi tenant building for not any additional cost.

So I encourage folks to take a look at this case study. It just came out a couple of weeks ago, so very fresh information. A great example for landlords and for tenants of what to look for. Next slide, please. Okay. So we're gonna hop over to the Q&A portion here, and we had a number of questions for Darrel and for Eric about the work that they're doing.

Eric, there's some interest in this scorecard that you put together for prospective tenants, and one person is asking, "To what extent C&W tries to influence sustainability goals for a tenant or a potential tenant in addition to the analysis provided after the fact?" So you're collecting information about what folks want. To what extent do you encourage one way or another different ECMs?

Eric Duchon:

Sure. So in terms of the influencing the questions that go into the questionnaire, we certainly have a say in that. Generally, the large corporate occupiers that we're doing this work for have CSR goals coming down to them. Some of them are CRE specific and some of them are just, "We're going to reduce our carbon footprint generally." The client that I showed specifically has an initiative to reduce KWH per employee by 10 percent by 2020, so that's why submetering was a big piece of it there.

The other questions that we had asked were things that we had recommended to them, right? So knowing – you know, going into a LEED-certified building is probably going to be a greener building than a non LEED-certified building, and from my perspective, going to a LEED for existing buildings certified building you actually get a lot of comfort knowing that it's an EB building rather than, for instance, a BD&C or core and shell, you know, new construction building. So we certainly have that conversation with the tenants that were developing the scorecard the questionnaire and scorecard process for us to what's really important to them based on their CSR goals, which of those relate to CRE and then what's important to the actual user of that office space from, you know, maybe it's not the home office but it's a retailer, things like that. So we take a lot of that into consideration up front developing the questionnaire for a particular tenant.

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Holly Carr: Great. And can you speak a little bit to if and how water use plays

into the scorecard?

Eric Duchon: Sure. So water use is generally a question on there. Basically, the

most basic question that we ask on it is the building fitted with water efficient fixtures, toilets and sinks? When a smaller tenant is moving into a building, generally they're not gonna build out their own bathroom. So it's up to the landlord to provide that and that's

why we ask that question.

For larger tenant space users they'll be building it out themselves so they can generally pick what to put in there. In terms of water efficiency in general though, we do a lot of work with our buildings on retrofitting their flow and flush fixtures, ensuring that their operations for things like landscape maintenance are water

efficient as well.

Holly Carr: We had an audience member talking a little bit about the mixed

messaging coming from IT departments versus what they might be hearing from, you know, sustainability folks or from Cushman & Wakefield, wondering if you work directly with IT departments in some of your buildings. It says, "Many employers run their updates at 1:00 AM or the middle of the night and wants employers to leave – or employees to leave their computers on overnight." So, you know, they're getting a message to turn things off and then they're getting another message to turn them on. Maybe they're turned on for them in the middle of the night. Have you had to deal

with that?

Eric Duchon: Yeah. This is actually a conversation I had just a few weeks ago

with the Cushman & Wakefield CTO and it's a bit of a funny one because I remember getting those kinds of messages a couple of years back here at Cushman & Wakefield and this has been a question I've been asked a lot. And I think it was a little bit of a myth that the computers needed to be on at 1:00 AM to receive the update. The update is pushed out on a server and if – even, for instance for me, I have a laptop I take home with me every night – when those updates run my computer just takes an extra two, three minutes to turn on in the morning because the update is running to it once I log in, so you kind of see this, you know, Windows screen of, you know, your computer's updating 50 percent, 70 percent, what – so we had a good laugh over it – and this is our CTO –

about companies that do that.

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So we have now – it's the plan to work with IT departments about that and ask, "Do the computers really need to be on in the middle of the night or will it push when the computer is reconnected to the server?" 'Cause we're finding that it was a common myth that needs to be dispelled. So if that's happening in your firms, please – you know, I've even actually sent in and had some tenants send in questions to their general IT box that then get elevated. One of them was around Energy Star equipment because we were really figuring out what the policy was for that building questionnaire, but there's different ways to go about it if you don't have a direct line into a CTO like I have the privilege of having here at Cushman. So, please, start the conversation with your IT department if you haven't and maybe find out how to do that creatively if you don't have that direct line.

Holly Carr: Awesome. It's tenant space myth busters today.

Eric Duchon: Yep.

Holly Carr: [Laughs] Great. I'm gonna turn the questions over a little bit to

Darrel. Darrel, we had a lot of interest in like what Sprint is actually doing and wanting to know more detail about some of your initiatives underway. So first question was, "What type of

smart thermostats are you using in retail stores?"

Darrel Carter: We picked Prolifics, and that was four years ago. I would say too

there is a wide variety of thermostats available that essentially do the same thing. At the time, and kind of leading to the next thing, at the time we hadn't planned out our SEBA program, the analytics piece of this, and one of the things we're working with now is how to get our stats talking to our intelligence. And so today, if you were doing that, you could easily have the vision that that's where you wanted to go and select your stats so – with that capability

already in place, which we didn't have the luxury of.

Holly Carr: Okay. Yeah. And that is the next question, so one question was,

"Have you – this SEBA program that you talked about, Sprint Energy and Building Analytics, is this a homegrown thing or are you using third-party software for this program?" And then secondly, "Do you have any installations in any of your buildings now and is this something that you're using with your retail spaces

or just your commercial office space-type buildings?"

Darrel Carter: So we currently have 4 million square feet of commercial office

space up and running on SEBA and we have plans or still planning for installation of that. We have a network category of buildings

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which are essentially datacenters. So that's probably next and then we're trying to plan out retail. We haven't done our first pilot in the retail space but that's part of the work we're doing today is how do we get those stats to talk to SEBA, so we're working through all that. It's not a homegrown system, although when we started this we considered that, but eventually concluded that – and we use ESI as the company who takes the data in and analyzes it and then provides that back to us for action items.

Holly Carr:

Great. Okay. Thanks very much. Let's go to the next slide if you would, Kendall. Ah, yes. The Better Building Summit. So this is our big annual event that is coming up May 9th through the 11th, and your Better Building Summit is a conference of Better Buildings Challenge and Alliance Partners as well as many, many stakeholders, open to the public, lots of fantastic sessions on, you know, what folks are really doing in their buildings every day to get energy efficiency results.

I encourage folks to take a look at the agenda for the conference. Three full days of sessions with a morning on the 9th of building tours. So two and a half days of sessions and one half day of building tours, and you can register now for that conference. Next slide, please. One more fun thing before we close out for the day. The Better Buildings Challenge Swap is something that we tried for the first time this year.

This is a – basically a television show online. We have three webisodes where we took two of our Better Buildings Challenge partners, Whole Foods Market and Hilton Worldwide, and they basically swapped facilities in San Francisco. So the energy management team from Hilton went and visited a store in San Francisco, a Whole Foods Market store in San Francisco, and the Whole Foods Market energy team went over and did an exchange program at the largest Hilton Hotel on the West Coast, and they found lots and lots of energy efficiency opportunities in each other's stores. So high drama for energy efficiency and a really neat way to sort of bring energy efficiency to a broader market, not just to energy geeks like ourselves who are probably on this call but, you know, to our families and our friends.

So I hope that you all click that link down there on the bottom and check out those webisodes and a really cool trailer. So lots of fun. We're hoping to do it again with some of our other partners. Next slide, please. So with that, I'd like to thank our panelists very much for taking time to be with us today and talk a little bit about tenant energy efficiency and what some of the best practices and

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opportunities are. Please feel free to contact our presenters directly. Their emails are listed here, if you have additional questions about what they're doing and we weren't able to get to your question today.

If you'd like to learn more about the Better Buildings Challenge or the Better Buildings Alliance, feel free to reach out to me at the email shown, and I encourage you to follow the Better Buildings Initiative on Twitter for all the latest. Our Twitter handle is down there at the bottom. A reminder that you will receive an email notice when the archive of this session is available online. If the DOE tenant report is available when we send out the archive we will certainly include that as well. Otherwise, we'll be updating the archive of this presentation to include a link to that tenant report as soon as it becomes available because it's any day now thing. So thanks very much for joining everyone and have a great afternoon.

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